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Basic Technical Condition of Cotton Processing Enterprise

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Report Highlights:

On December 31, 2008, China's General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) and China's National Standardization Commission published National Standard GB/T 18353-2008 on Basic Condition of Cotton Processing Enterprise. This standard, effective May 1, 2009, has not yet been notified to the World Trade Organization (WTO). It applies to domestic cotton processing enterprise and stipulates the technical condition of cotton processing enterprise. It is unlikely to impact international cotton trade. This report contains an UNOFFICIAL translation of GB/T 18353-2008.

Executive Summary:

On December 31, 2008, China's General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) and China's National Standardization Commission published National Standard GB/T 18353-2008 on Basic Technical Condition of Cotton Processing Enterprise. The standard, effective May 1, 2009, has not yet been notified to the World Trade Organization (WTO). The standard applies to domestic cotton processing enterprise and stipulates the technical condition of cotton processing enterprise. It is unlikely to impact international cotton trade. This report contains an UNOFFICIAL translation of GB/T 18353-2008.

General Information:

Author Defined:

BEGIN TRANSLATION:

National Standard of the People's Republic of China

GB/T 18353-2008 (to supersede GB/T 18353-2001)

Basic Technical Condition of Cotton Processing Enterprise

Published on December 31, 2008

Implemented on May 1, 2009

Published by China's General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) and China's National Standardization Commission

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Preface

This standard supersedes GB/T 18353—2001 “Basic Technical Condition of Cotton Processing Enterprise”.

In this standard, the following changes have been made against GB/T 18353—2001:

The technical indices of ginning and baling in Main Technical Requirements have been changed.

The production rate of ginned cotton during processing standard grade seed cotton with a moisture regain of 6.5%~8.5% has been specified as follows: 800kg/h for one saw gin and 100kg/h for one roller gin, and 3,200kg/h for one gin production line.

It has been specified that processed cotton fiber shall be baled by a baling machine with a nominal force above 4,000kN. The baling capacity shall be no less than 4,000kg/h for one baling machine.

It has been specified that automatic moisture regain device may be used to measure the moisture regain during baling.

Storage of samples has been added.

Cutting of cotton samples, measuring of moisture regain, bar code printing of bar code information management system have been added for cotton processing assembly line.

The consumption of plastic binding tape and plastic package bag per metric ton of ginned cotton are added as Economic Indices.

Other conditions that a cotton processing enterprise shall satisfy are added.

It has specified that the annual ginned cotton processing capability of a cotton processing enterprise shall exceed 5,000 metric ton (MT).

This standard is proposed by All China Federation of Supply and Marketing Cooperatives.

This standard falls under the jurisdiction of National Technical Committee on Cotton Processing of Standardization Administration of China.

This standard is drafted by: China Cotton Association, China Fiber Inspection Bureau, Cotton Processing Committee of China Cotton Association, Zhengzhou Cotton and Jute Engineering and Technology Design Institute under All China Federation of Supply and Marketing Cooperatives, China Cotton Machinery & Equipment Co., Ltd., Handan Jinshi Cotton Machinery Co., Ltd., Nantong Cotton Machinery Co., Ltd., Shandong Swan Cotton Industrial Machinery Stock Co., Ltd., and Yili Yixin Cotton Co., Ltd.

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Edition issuance history of the superseded standard:

GB/T 18353—2001

Basic Technical Condition of Cotton Processing Enterprise

1. Scope

This standard specifies the basic technical conditions for cotton processing enterprises.

This standard applies to the administration and qualification validation of cotton processing enterprises.

2. Normative References

The clauses contained in the following standards are incorporated as clauses of this present standard by reference. For dated references, subsequent amendments (other than corrigenda) or revisions are not applicable to this present standard; however, the parties to an agreement made on the basis of this standard are encouraged to review the possibility of using the latest edition of referenced documents. For undated references, the latest edition of the publication referred to applies.

GB 1103 Cotton—Upland Cotton

GB 6975 Cotton Baling

GB 12801 General Principles for The Requirements of Safety and Health in Production Process

GB/T 13786 Artificial Daylighting Illumination for Cotton Classing Rooms (GB/T 13786—1992, eqv. ISO 4911: 1980)

GB 18399 Security Requirement of Cotton Processing Machinery

GB 50016 Code of Design on Building Fire Protection and Prevention

3. Main Technical Requirements

3.1 Ginning

3.1.1 The grade of ginned cotton shall not be lower than that of its seed cotton.

3.1.2 Ginning quality shall agree with the stipulations set forth in standard GB 1103.

3.1.3 Seed cotton with a moisture regain above 8.5 percent shall be dried.

3.1.4 The production capacity of ginned cotton during processing standard grade seed cotton with a moisture regain of 6.5 to 8.5 percent has been specified as follows: 800kg per hour for one saw gin and 100kg per hour for one roller gin, and 3,200kg per hour for one gin production line.

3.1.5 During the ginned cotton processing, recycled cotton, foreign fiber, and other harmful substance shall not be incorporated.

3.2 Baling

3.2.1 During baling, each bale of cotton shall be tested on the assembly line for its moisture regain and the data shall be saved in the bar code.

3.2.2 Processed cotton fiber shall be baled using a baling machine with a nominal force above 4,000kN. A baling machine shall have a baling capacity of above 4,000kg per hour. Cotton package shall be in compliance with the stipulations of standard GB 6975.

3.2.3 A baling machine shall be equipped with an automatic sampling device. Two samples shall be taken for each cotton package: one for instrument inspection, the other to be kept by the enterprise. Each sample's weight shall be no less than 125g. Each cut sample shall be 210mm to 260mm long and 105 to 124mm wide.

3.2.4 Sampling shall be conducted as required by standard GB 1103.

3.2.5 After automated weighting of a cotton bale, the bar printer prints bar codes. Two bar codes will be placed in the two cotton samples, the other two bar codes will be fixed to both ends of the cotton bale or be placed inside the cotton bale.

3.2.6 The baled cotton shall be transferred to a specified location.

3.2.7 A baling machine shall be provided with adequate space to accommodate auxiliary equipment for the convenience of collecting and keeping samples.

3.3 Sample storage

A dedicated cotton sample storage room shall be available. Samples shall be kept tidily on a dedicated sample shelf.

3.4 Cotton processing flow

3.4.1 Processing flow for hand-picked cotton is shown in Fig. 1.

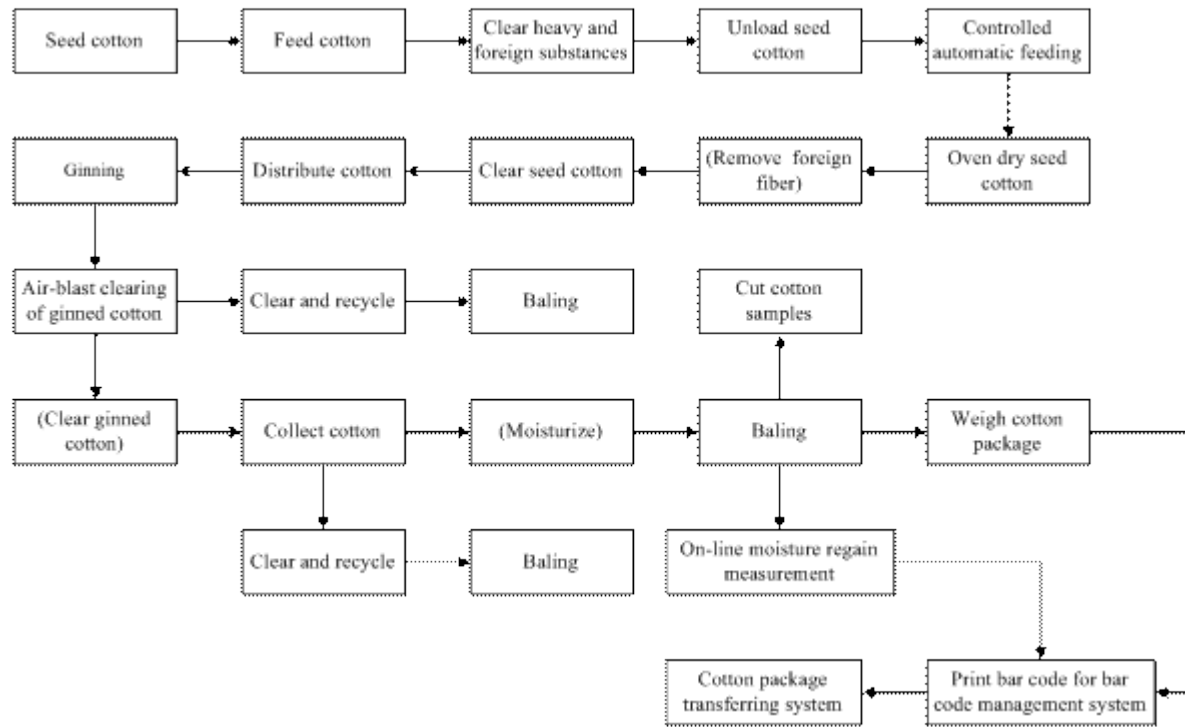


Fig. 1 Processing Flow for Hand-picked Cotton

3.4.2 Processing flow for machine-picked cotton is shown in Fig. 2.

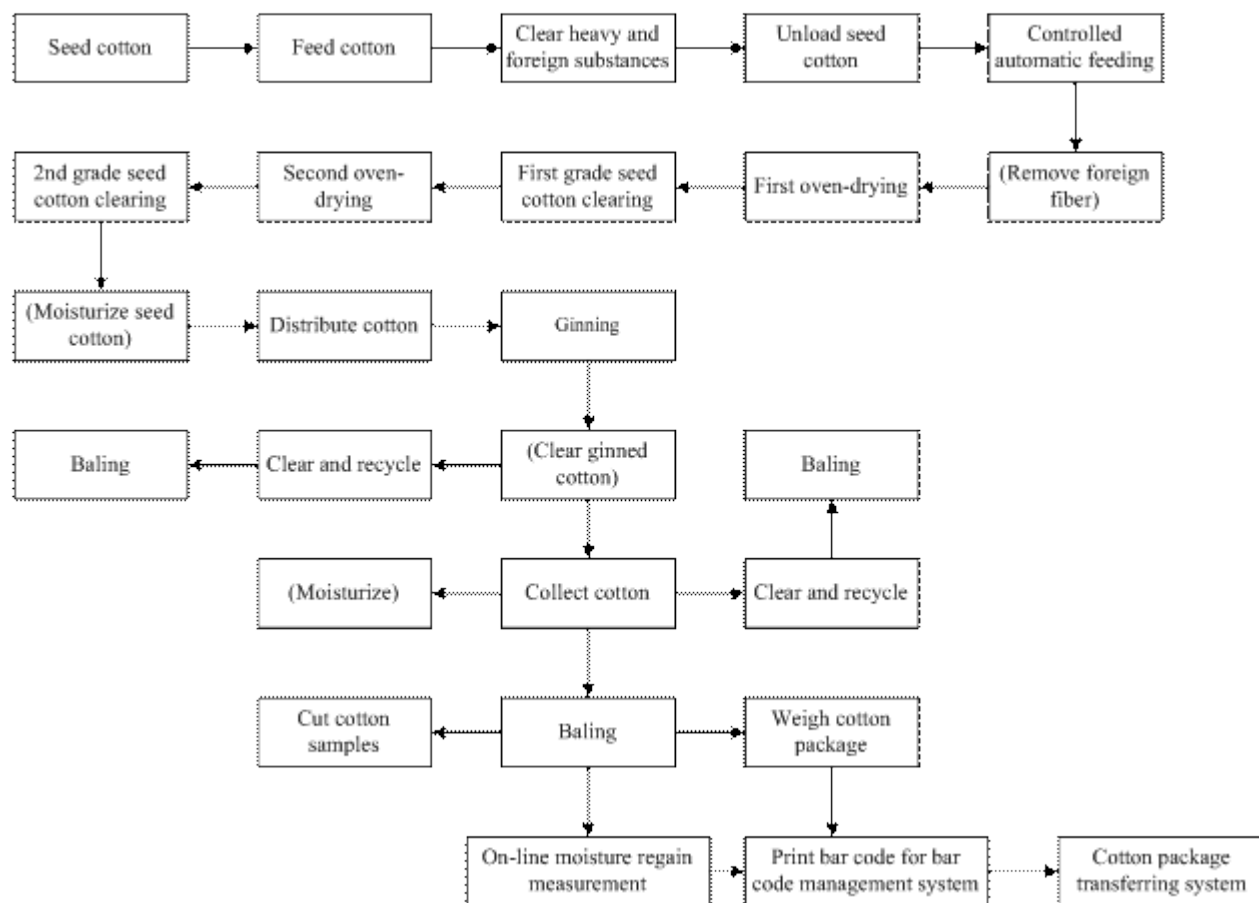


Fig. 2 Processing Flow for Machine-picked Cotton

3.4.3 The processing flow for pretreated machine-picked cotton is the same as that in 3.4.1.

3.4.4 Air-borne dust in air delivery system shall be removed in a concentrated manner. The fiber shall be recycled; however recycled fiber shall not be added to the ginned cotton.

3.5 Technical and economic indices

3.5.1 Power consumption for processing one MT of saw ginned cotton and one MT of top roller cotton shall not exceed 110kWh and 150kWh respectively.

3.5.2 Power consumption for processing one MT of machine-picked cotton shall not exceed 250kWh.

3.5.3 Power consumption for baling one MT of ginned cotton shall be less than 18kWh.

3.5.4 Steel wire (steel strip, plastic binding tape) and package cloth (plastic package bag) consumption for baling one MT of ginned cotton is given in Table 1.

Table 1 Steel Wire (Steel Strip, Plastic Binding Tape) and Package cloth (Plastic Package Bag) Consumption for One Ton Of Ginned Cotton

| Materials | Steel wire (kg) | Steel strip | Package cloth | Plastic binding | Plastic |
|-----------|-----------------|-------------|---------------|-----------------|---------|
|-----------|-----------------|-------------|---------------|-----------------|---------|

| | | (kg) | (m ²) | tape (kg) | package bag (m ²) |
|------------------------|-----|------|-------------------|-----------|----------------------------------|
| Consumption indices | ≤10 | ≤12 | ≤22 | 2.6±0.3 | 3.1±0.3 |

3.6 Managerial and technical personnel

3.6.1 The enterprise shall have production management personnel of intermediate qualification level or above.

3.6.2 The enterprise shall have such technical staff as ginning workers, baling workers, sampling workers, inspectors, information management personnel, professional electrician, installation and debugging workers, production managerial personnel, and warehouse keepers. They shall have required practitioner qualification certificate or professional qualification certificate issued by the personnel authority or employment authority. The staff shall have scheduled training and shall adapt themselves progressively to modernized management and production.

3.7 Safety, fire prevention, and environmental protection

3.7.1 The safety and fire prevention of a cotton enterprise shall agree with the stipulations in standard GB 50016 and the enterprise shall have obtained a fire safety certificate issued by fire prevention authority of the public security.

3.7.2 Safety and hygiene during production shall be in compliance with the stipulations in standard GB 12801.

3.7.3 Machinery safety for cotton processing shall agree with the stipulations in standard GB 18399.

3.7.4 Air-borne dust concentration at the workplace of a cotton processing enterprise shall not exceed 10mg/m³, and concentration of dust emitted into the atmosphere shall not exceed 120mg/ m³.

3.7.5 Noise level at the workplace shall generally not exceed 85dB(A).

3.8 Administration of processing technology

3.8.1 A cotton processing enterprise shall have a processing flow in agreement with 3.4.

3.8.2 Equipment maintenance and service standard and operation regulations shall be developed in accordance with the operation instructions of the principal processing equipment and main assorted equipment.

3.8.3 Inspection instrument and testing equipment shall have operation regulations, maintenance and service regulations, and calibration schedule.

3.8.4 Principal processing equipment, assorted equipment, and inspection instrument shall have technical filing management system (like technical process flow design drawings, workshop structural design drawings, equipment foundation and cable trench drawings, fire fighting pipe network drawings, user's manuals, inspection records, operation and maintenance and service records, measuring equipment calibration records, instrument and equipment accident report, analysis and handling records, etc.)

4. Quality Management of a Cotton Processing Enterprise

4.1 A cotton processing enterprise shall have well-defined quality policy and targets and sound quality management system.

4.2 A cotton processing enterprise shall have well developed regulations and rules:

- a) Inspection rules on cotton entrance and exit of the factory;
- b) Equipment maintenance and service system and equipment filing management system;
- c) Reporting and handling rules on quality accident, analysis, assessment;
- d) Document, record and filing system;
- e) Quality reward and penalty system;
- f) Inspection, processing, finance statistics and report system;
- g) Product quality information management system;
- h) Post accountability system;
- i) Managerial and technical personnel training and evaluation system;
- j) Post certificate system for operators of principal equipment;
- k) Sample retention system.

4.3 Quality assurance

4.3.1 A cotton processing enterprise shall have a quality management department.

4.3.2 National or industrial standards on cotton processing and cotton quality (in writing) shall be available.

4.3.3 National physical reference materials for cotton grade and length shall be available.

4.3.4 Main cotton processing procedures shall be shift-inspected.

4.3.5 The following equipment shall be available: electric moisture meter, lint ratio experimental ginning device, moisture detector, platform scale, lint ratio balance, balance, raw cotton impurity analyzer, and air flow meter, etc.

4.3.6 Cotton inspection shall be provided with experimental ginning room, cotton classifying room, cotton sample retention room, and instrument inspection room, etc.

4.3.7 Cotton classifying room shall meet the requirements for artificial day-lighting illumination as specified in standard GB/T 13786 or have north-facing window day-lighting.

4.3.8 A cotton processing enterprise shall compile and maintain seed cotton (ginned cotton) warehouse admission inspection forms.

4.3.9 A cotton processing enterprise shall have complete “one experiment and five determination” records (inspect lint ratio by experimental ginning, determine the grade against the standard, measure the length using a measuring tape, test the moisture regain using an electric moisture meter, and test the impurity using an impurity analyzer), follow-up inspection records, and ex-factory records.

4.3.10 Seed cotton shall be piled separately in the factory.

4.3.11 A cotton processing enterprise shall store the cotton samples properly.

5. Other Conditions a Cotton Processing Enterprise Needs to Satisfy

5.1 The annual ginned cotton processing capability of a cotton processing enterprise shall exceed 5,000 MT.

5.2 A cotton processing factory shall have a clearance of at least 500 meters from any residential block. A cotton enterprise shall separate its living area, production area, and storage area one from another by a safe distance. Garage and oil depot of the enterprise shall be located at a safe point outside the factory in accordance with applicable regulations. The layout and provision of warehouse, goods yard and other facilities shall satisfy relevant fire prevention safety requirements.

5.3 Principal processing equipment of a cotton enterprise shall have “Production License for Industrial Products” (other than the goods not governed by “Production License for Industrial Products”).

5.4 A cotton processing enterprise shall have necessary workplace for ensuring the quality of processed cotton.

END OF TRANSLATION